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CLINICAL MEDICINE

VOL. 57 FEBRUARY, 1950 NO. 2

Original Articles

Editorials

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Fastidious Frank IS A VITAMIN-BLANK

If food *looks* good, says Frank, perforce—it's good *for* you. But a finicky appetite can often unbalance the delicate scale of nutrition. Frequent result: subclinical vitamin deficiency.

You find Frank's first cousins everywhere—the hurriers, the worriers, the smokers, the topers—each contributing in his own way to the nation's high percentage of underfed and misfed, regardless of age or economic rank. You see them daily.

Dietary reform is essential. Yet, indifference and confirmed habits make reform a thing of tim difficulty. Isn't it sound, then, to suggest tha vitamin-deficient patients supplement thei with easy-to-take DAYAMIN capsules?

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Pantothenic Acid (as Calcium Pantothenate)	5 mg.
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CLINICAL MEDICINE

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CLINICAL MEDICINE

FEBRUARY, 1950

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Editorials

Telling the Patient About Fibroids

Often, more harm is done to the patient by the manner of revealing facts of examination than by the lesion itself. The physician must never forget that what he says, or what the patient feels that he implies, affects that patient the rest of her or his life.

R. T. Frank, long a gynecologist of fame in New York City, has good advice for the physician who must tell a patient that her uterus contains a fibroid tumor.[1]

"Fibroids rarely require emergency treatment, they do not lead to cancer formation, more than 50 per cent may be watched and may never require operation, small fibroids situated on the fundus rarely interfere with pregnancy and safe delivery, and at the menopause small fibroids involute and disappear."

These statements summarize one man's opinion. What is not mentioned is the fact that fingers are not perfect diagnostic instruments. A woman of 58 was recently seen by a well trained gynecologist and a number of gynecologic residents at a university hospital with a resultant diagnosis of uterine fibroid. No therapy was advised. Within six months, exploration revealed an inoperable sarcoma of the uterus.

Attention should not be focused on the pelvis alone, as witness the recent case of a woman of 40 who was twice operated upon in a famous clinic. The first time was for "exploration" of a small pelvic tumor, which turned out to be a walnut sized fibroid. The second surgical procedure removed the gall bladder and many small stones, detected at the time of the first operation, and relieved the patient of her abdominal distress.

Another exception to the above advice is the fact that a woman with a fibroid may develop another condition, and both patient and physician be misled by the previously known fibroid.

Example: A very obese woman of 36 had known for some time that a fibroid was present. Because she had been told that fibroids were harmless unless they caused bleeding, she would not consent to therapy until severe back pain began. At operation a medium sized fibroid was removed together with a adenocarcinoma of the ovary, which caused her death in 8 months.

It does not seem sound to carry on publicity campaigns advising the patient with a tumor to seek medical care, then to suggest watchful waiting. If the tumor is benign, the patient bears a mental burden. If the tumor is malignant, waiting means death.

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*1. Frank, R. T., *J.A.M.A.* 140:1001 (July 23) 1949. 1035 Park Avenue.

The Diagnosis of Syphilis in General Practice

In general practice, the incidence of syphilis is decreasing so rapidly that many practitioners will not encounter one case a year. As a condition becomes rarer, there is a tendency to forget it or to think of it last in differential diagnosis.

The Venereal Disease Education Institute of Raleigh, North Carolina, publishes a free handbook for physicians which summarizes salient points concerning diagnosis and treatment.

General Rules

Suspect syphilis in everyone; test the blood of every patient; *prove* your diagnosis with physical signs and laboratory tests; treat only after the diagnosis is proved.

History

Is there a history of sexual exposure or of gonorrhea? Is there a history of lesions, genital, oral or skin? Is there a history of localized or generalized lymph node enlargement? Have there been miscarriages, stillbirths, premature births, puny children or children with positive blood tests? Have spinal fluid or blood tests been performed? What is the serologic status of sex partner? Neurologic manifestations?

If a patient is found to have a positive Wassermann test, have any of the following conditions been present: Malaria, recent vaccinia, infectious mononucleosis, virus pneumonia, other acute respiratory infections, brucellosis, repeated blood donations, all of which may cause a false positive test.

Physical Examination

Take blood tests on patients with skin eruptions or mucous membran lesions. In all cases of iritis, take blood test first, then use atrophin locally. Take a blood test on patient with a sore throat that doe not heal in 10 days. Any genita lesion in male or female should b suspected as being of syphilitic ori gin until proven otherwise. Do no treat the lesion locally or give anti syphilitic drug until blood test be comes positive or until serum from the lesion or aspirated from an en larged, neighboring lymph node ca be studied under the dark field.

Take a blood test monthly fo every 3 months on patients with gon orrhea or apparently non-syphiliti lesions of the genitals.

If a diagnosis of primary syphili cannot be confirmed, consider chan croid, lymphogranuloma venereum and granuloma inguinale, and us appropriate tests. These disease may resemble the syphilitic chancr but require different therapy, as sul fonamides or streptomycin.

Especially examine the skin bones, mucous membranes, genita lia, lymph nodes, eyes, hearts, re flexes and muscular coordination The more thorough the examination the more often signs will be found which reveal that the syphilis is ac tive rather than latent.

If congenital syphilis is suspected an x-ray of the long bones will show osteochondritis, periostitis and pat eches of decalcification.

The handbook furnishes detailed information concerning use of labor atory tests and schedule of penicillin treatment. It may be obtained by writing to the Institute.

KNOW THE PATIENT

To know an organ and its diseases thoroughly is the apparent goal of many medical and surgical specialists; but to know the patient thoroughly is the goal that should be set for himself by the true physician.—Dr. Walter Freeman.

CLINICAL ASPECTS OF
Cholesterol Metabolism

By E. H. STOKES, M.D., CH.M.
Sydney, F.R.A.C.P., Sydney, Australia

It is proposed to give a summary of present day concepts of cholesterol metabolism and then to discuss the clinical significance of blood cholesterol estimations

The Metabolism of Cholesterol

Cholesterol is an unsaturated secondary alcohol. *It is an essential constituent of all living animal cells* and bears an important biochemical relationship to the bile acids, the adrenal cortical hormones, the testicular and corpus luteum hormones, vitamin D and the carcinogenic hydrocarbons.

In spite of an enormous amount of research little is known about the function of cholesterol in the bodily economy. It appears possible, however, that cholesterol esters resulting from the combination of cholesterol and fatty acids may play an important part in the absorption and transportation of fat. Cholesterol is believed also to be a major factor in the regulation of cell permeability and in the production of imunological reactions.

While some of the cholesterol present in the the body is derived from that contained in ingested animal food it would appear likely that the greater part is synthesized within the organism. It is not obtained directly from vegetable food as plants are not capable of cholesterol synthesis. Apparently cholesterol taken in the food is absorbed mainly by the intestinal lymphatics whence it passes into the blood stream. Some is excreted by the bowel after being reduced by intestinal bacteria to coprosterol and some is secreted into the bile. The body eliminates but little cholesterol as such, a small amount being lost in the desquamation of the skin and some being secreted in the milk. Although there is convincing evidence that cholesterol is synthesized within the body it is not definitely known what tissues or organs take part in the process but it appears probable that the reticulo-endothelial system plays an important role in cholesterol synthesis and that the liver determines the ratio of free to ester cholesterol.

The Clinical Significance of Blood Cholesterol Estimations

While the method of control of cholesterol metabolism is still a mystery so many estimations of the blood plasma and blood serum chollesterol have been made that their value in the diagnosis and treatment of certain diseases may be regarded as being established on a firm basis.

Cholesterol exists in the blood plasma or serum in two forms, free and esterified, the latter comprising about 60 to 80 per cent of the total. The limits of the normal figures for the cholesterol content of the blood as defined by different authorities vary so widely that the discrepancies cannot be accounted for by differences in technical methods. The results obtained for serum are practically identical with those found in

plasma but are less subject to variation. From a study of the literature it would appear that normal values range from 160 to 230 milligrames per 100 millilitres.

Physiological Variations

Certain physiological variations in the level of plasma cholesterol are worthy of mention. Some observers have found that there is a decrease during or within a few days of the menstrual period and that this decrease is either preceded or followed by a cholesterol level considerably above the average for the individual. Elevation of the plasma cholesterol occurs during pregnancy reaching its maximum point at the thirtieth week. With regard to diet it has been found that the blood cholesterol level of the rabbit may be considerably increased by feeding with cholesterol. Observation of similar experiments in human beings have shown no such results. Cholesterol however, is not present in the dietary of the rabbit whereas man is used to eating cholesterol-rich foods.

Pathological Variations

Elevation of the plasma cholesterol above the maximum normal level is termed hypercholesterolemia and decrease below minimum normal level is referred to as hypocholesterolemia. The terms may be applied arbitrarily to figures respectively greater than 250 and less than 150. Many observers, however, regard the latter value as being too high.

Hypercholesterolemia occurs in the following diseases:—myxedema, diabetes mellitus, certain types of Bright's disease, xanthomatosis, hepatic and biliary tract diseases and various other conditions. Hypocholesterolemia is found in thyrotoxicosis, pernicious anemia during relapse, hemolytic jaundice, severe hypochromic anemia, hepatic degeneration, acute infectious diseases, tuberculosis, septic infections, genito-urinary sepsis, inanition, terminal states and other conditions.

As it is not known what mechanism or mechanisms control cholesterol metabolism it is obviously impossible to determine the exact cause of the elevation or the depression of the plasma cholesterol in the various diseases enumerated above.

Hypercholesterolemia

As will be shown below hypercholesterolemia may be of great clinical importance.

Myxedema

The plasma cholesterol is, as a rule, considerably elevated in this condition, figures as high as 800 or even 1000 being not uncommon in untreated cases. The increase is roughly proportional to the decrease of the basal metabolic rate. As a result of treatment the plasma cholesterol falls to normal limits. High values have also been reported in cretins and hypothyroid children. The determination of the plasma or serum cholesterol content of the blood is much less troublesome to the patient than the estimation of the basal metabolic rate and is much more applicable in non-cooperative patients. Finally the estimation is a useful accessory aid in determining the early onset of hypothyroid manifestations in patients treated for thyrotoxicosis by means of thiouracil.

The cause of the hypercholesterolemia found in myxedema has not yet been determined but it has been suggested that the lowered blood volume in this disease may be an important factor and it has been also postu-

ated that hyperactivity of the anterior hypophysis may be the cause of the increased blood cholesterol content.

Diabetes Mellitus

In severe uncontrolled cases, especially those with complications such as arteriosclerosis, retinitis, gangrene and impending coma, hypercholesterolemia of considerable degree is usually present, but often subnormal values are found in patients in the advanced stages of the disease.

It appears likely that the hypercholesterolemia occurs as a result of a derangement of fat metabolism and a greater demand for fat because of the decreased ability of the body to use carbohydrate fuel. Hypercholesterolemia is associated with an increase of the total blood lipoids and it has been suggested that the increased blood lipoid content is merely an indication of the quantity of that material in the process of transportation.

Bright's Disease

Hypercholesterolemia is found in the "nephrotic" forms of nephritis and in glomerulo-nephritis. The increased cholesterol values are associated usually with a diminished concentration of serum protein involving especially the serum albumin fraction. It has been suggested that the hypercholesterolemia may be the outcome of an attempt to maintain the osmotic pressure of the blood plasma which has been lowered as a result of diminution of serum protein. It has also been postulated that it is due to diminished activity of the reticulo-endothelial system in removing cholesterol from the blood. It should be noted that in certain cases of nephrosis the basal metabolic rate is diminished and that in a few such instances the edema and the hypercholesterolemia appear to respond favourably to thyroid therapy.

Xanthomatosis

Hypercholesterolemia is present in certain types of xanthomatosis such as xanthoma tuberosum multiplex. These usually improve after thyroid therapy. It is also worthy of note that coronary occlusion is not an infrequent complication of xanthomatosis.

The cause of the deposition of the xanthomatous tumours is unknown but it would appear that, as a result of some complex physico-chemical processes, cholesterol, a substance which is normally held in solution by the blood plasma, is precipitated into the tissues. Furthermore there may be abnormal liberation of cholesterol from the reticular cells.

Hepatic and Biliary Tract Diseases

Hypercholesterolemia is usually found in jaundice due to uncomplicated common duct obstruction. It has been suggested that this may be due to the absence of bile or of certain of its constituents from the intestine. Should normal or subnormal cholesterol values be present in cases of jaundice of extra-hepatic origin, complicating factors such as cachexia, infections and liver cell damage are usually present. In cholecystitis or cholelithiasis without obstruction the plasma cholesterol concentration and partition are either normal or not significantly elevated. Experimental studies have indicated that there is no constant relationship between the concentration of cholesterol in the bile and in the blood plasma. Thus it would appear that the formation of gall-stones is probably dependent to a large extent

upon factors operating within the extra-hepatic bile passages.

Hypocholesterolemia

In thyrotoxicosis low values are obtained, figures below 100 being present in the most toxic cases. When the liver cells are seriously damaged the plasma cholesterol content is usually considerably decreased; this finding is in contrast with simple obstructive jaundice in which hypercholesterolemia is the rule. The more severe the hepatic damage the lower is the cholesterol value. The proportion of esters is diminished (the so-called Estersturz). In infections and various types of anemia low values are usually found.

In uncomplicated arteriosclerosis or atherosclerosis the blood cholesterol values are normal or low as a rule. As mentioned above a similar state of affairs obtains in cholecystitis and cholelithiasis without jaundice. These results raise the important question as to whether cholesterol in the diet should be restricted in these conditions. It would seem wise to do so because foods very rich in cholesterol such as brains, ham, bacon and cream are not essential to the bodily findings, it is possible that some of the cholesterol contained in these foods may be deposited on the diseased tissues.

SUMMARY

(1) A short account is given of the metabolism of cholesterol.

(2) The clinical significance of blood cholesterol estimations is discussed.

(3) The importance of blood cholesterol findings in certain diseases is stressed and their value in cases of myxedema is emphasized.

REFERENCE

E. H. Stokes: "A clinical and experimental investigation of the blood cholesterol content in myxedema and other conditions." Book.

HAPPINESS

The degree of our happiness is determined by our ability to forget ourselves and turn our attention outwards to the needs and happiness of others.—Bishop Irving S. Cooper.

Differential Diagnosis Between Lobar and Virus Pneumonia

A well prepared blood film will help to make the differential diagnosis between bacterial, virus (atypical) pneumonia or infarction. In lobar pneumonia, there is a considerable increase in the total white blood cell count, due largely to an increase in polymorphonuclear neutrophiles (90 per cent or more of total) which are jammed with heavy basophilic toxic granules. No monocytes or eosinophiles can be found.

In virus pneumonia, the total count is not elevated or elevated only slightly. The neutrophiles are slightly increased, usually less than 85 per cent. Monocytes are increased and abnormal lymphocytes are present.

In infarction, there is a definite increase in total count, a "total" leukocytosis, with all cells represented, no great increase in neutrophiles and no evidence of toxic changes, and eosinophiles are present and abundant.—Wyman Richardson, M.D. (Massachusetts General Hospital, Boston) in *Amer. Pract.* Feb. 1949.

Earlier

TREATMENT of TUBERCULOSIS

and Its Prevention

By W. L. FRAZIER, M.D.

858 W. 47th St., Los Angeles, California

History

Quite some time past an epidemic of smallpox broke out in The Metropolitan Hospital for the tuberculous, at Syracuse, New York. Those having it recovered and also lost all their demonstrable symptoms of tuberculosis. A physician in Chicago had a family of patients who had tuberculosis. They had, and recovered from smallpox, and lost all their demonstrable symptoms of tuberculosis. A sanitarium in Texas for the Tuberculous experienced within it an epidemic of smallpox and those who had it, after recovery, had no further symptoms of tubercular infections. About 1880 my father, who was a physician, observed that many individuals who had tuberculosis, and had smallpox and recovered from it, also lost their symptoms of tuberculosis. A Mexican Indian grandmother told me that if children had smallpox, they did not die of "the big cough", but if they did not have smallpox, they would likely die of "the big cough". It was learned that it was tuberculosis, she called "the big cough." Whether this is a general idea of the Mexican people I do not know, but it is general knowledge that they do not take considerable care to prevent their children from being exposed to smallpox and that Mexican folks are considerably marked by having had smallpox. From these and other observations it was concluded that there exists some relation between having smallpox, and immunization against tuberculosis, and also between having smallpox, and raising the resistance of a tubercular individual toward overcoming the tubercle bacillus infection.

Research

An extensive research was carried out over a period of years on animals, with an extract of smallpox vaccine and it was determined that these animals could be immunized against the tubercle bacillus with smallpox vaccine extract, and that early cases of tubercle bacillus infection, could with it be rendered symptom free. In humans, the same rendered early cases of tuberculosis symptom free, and also a majority of the moderately advanced cases lost the demonstrable symptoms of their tubercular infections.

Following the growth of the smallpox virus on the choriallantoic membrane of the chick embryo, a smallpox virus vaccine was produced, the virus being killed. Another series of research on animals was carried out, and it was determined that the killed virus immunizes against tubercle bacilli, and that given in

cases of early tubercle bacillus infection, the infected animals lost their demonstrable symptoms of tubercle bacillus infection. It was also observed that in using it in early cases of tuberculosis in the human, all detectable symptoms disappeared, and in a majority of the cases of moderately advanced tubercle bacillus infection, the same result was observed. The same is true in its use in tubercle bacilli infection of the lymph glands.

The earlier diagnosis of tuberculosis as made by research of the x-ray film, by use of the microscope, greatly facilitates treatment of the disease, regardless of the method used in treatment, because of the condition being determined before the site of the infection is encapsulated.*

Methods

Methods of treatment are likely to show some variations according to the mental processes of the physicians in attendance, and this is quite permissible. In the use of smallpox virus vaccine the writer starts by giving a very minute dose, and at each subsequent injection increases the dose by a very minute amount. In this way the defense properties of the system are gradually increased. The length of time required to render a case symptom free depends on the case. The types that are most easily rendered symptom free are those whose x-ray films are negative macroscopically, and positive microscopically, and whose sites of infection are not completely encapsulated. That is, those whose sites of infection show specks of calcium, or crescent, or horseshoe shapes, or some other shaped deposit of calcium which does not completely encapsulate the tubercle bacilli: An open space existing, allowing the defensive properties access to the infection.

Difficulties

There is a type of case which is difficult to classify, so far as the result of treatment is concerned. It is the case that presents a positive Mantoux, a negative x-ray picture both macroscopically and microscopically. These are the cases whose infections are not pulmonary, or if pulmonary, have not yet had calcium deposited in the lungs, or if deposited, deposited so sparsely as to be overlooked microscopically; or they are cases which, because of their natural or acquired resistance, give a positive Mantoux. Treatment in the above type of cases improves the general conditions of this type, and they do not to an appreciable per cent develop further symptoms of tuberculosis after treatment. Statistics vary as to the per cent of Mantoux positive cases that furnish a negative picture, and later present a positive picture. Some authorities estimate it as low as three per cent; others have it as high as twenty-three per cent. The negligible number of this type of cases that develop a positive picture even microscopically after treatment, justified the treatment. In this type of case there is no barrier against the protective properties of the individual, in contacting the tubercle bacilli.

There is another class; it is more difficult to render symptom free. This class embraces those who present sites of infection that are completely walled around, thereby rendering it much more difficult for the protective properties naturally in the

* This method was presented in Clinical Medicine Vol. 56, No. 10, pp. 153-154—October, 1949, "The Use of the Microscope in the Early Diagnosis of Tuberculosis" by W. L. Frazier, M.D.

system, and the protective properties generated in the system by injections of smallpox virus vaccine, or other means, to contact the tubercle bacilli. These cases require longer treatment, because the treatment must be continued until all the walled off areas that are going to break and allow the tubercle bacilli to escape, have done so, and been destroyed by the defense properties continuously generated and held in the system awaiting their escape.

Then, there is another type of case, which is very difficult. This type includes all those that are far advanced, with walled off cavities of varying size, and who have had the infection for so long that the protective properties of the individual are quite depleted and the possibility of stimulating more protective properties by any method is practically hopeless. In this type of case, only a small per cent responds to the administration of smallpox virus vaccine. In these cases extreme caution has been observed toward increasing the dosage slowly, to avoid a lighting up of a more nearly completely general infection.

Case Reports

Report of some of the cases treated is presented:

Case No. 196, Series A.: Female, age 29, housewife.

History: Had been attended by a physician in a middle West State, eighteen months previously, for enlarged cervical glands, one of which was excised and upon microscopic examination was found to be tubercular.

After moving to California she was not attended by a physician for about eighteen months. At this time there were four prominent cervical glands and several that could be palpated. The largest was about the size of an unhulled almond. Two others were only a bit smaller.

The Mantoux test was strongly positive. X-Ray picture of the chest revealed three sites of infection macroscopically, and many sites of infection were found when the film was examined microscopically. The temperature was subnormal forenoons and varied in afternoons from 99° to 100°.

Smallpox virus vaccine was used to combat the infection. The initial dose (injection) was .lcc; the second dose was .2cc; the third dose was .4cc; following the dose of .4cc, the patient experienced a feeling of moderate malaise and a considerable aching of the limbs. The dose was dropped back in the 4th, 5th and 6th injections to .2cc. At the 7th and 8th injections .3cc was given. At the 9th and 10th injections .4cc was given; 11th injection .5cc was given; at 12th to and including 16th injection .6cc yas given. Again a period of malaise occurred, with aching limbs. At 17th and 18th injections .3cc was given; 19th, through and including 22nd injection .4cc was given. At the 23rd, 24th, and 25th injection .6cc was given. The injections were suspended during the menstrual periods and were given at one week intervals, otherwise, with few exceptions.

Thirteen months after the injections had been discontinued, the cervical glands were only a very little larger than normal. During this period there had been no p.m. temperature above normal. An x-ray of the chest at this time did not reveal any enlargement of the areas of infection, and were characteristic of arrested sites of infection. There were no additional sites of infection demonstrable. The general condition of the patient was that of a normal in-

dividual, with the exception of the sites of the arrested infection.

Case No. 109: Female, Age 29, registered nurse.

History: Diagnosis of tuberculosis had been made in her case previous to starting treatment with smallpox vaccine extract. At this time x-ray examination demonstrated two small cavities in upper lobe of right lung and one small cavity in the apex of left lung. The sputum was positive for tubercle bacilli.

Treatment: Patient was put to bed and injections of smallpox vaccine was started. (In more recent cases smallpox virus vaccine has been used, as with it the dosage can be more accurately regulated, and the results in early cases are more rapid).

The injections were given twice a week, except during menstruation. They were started with .1cc and increased .1cc each dose until .5cc was given. The dose was then held at .5cc.

The patient was hospitalized for six months, and spent most of the first three months in bed. After the fifth month there was no elevation of the afternoon temperature, or other symptoms of an active tubercular infection. X-rays taken periodically over a period of over four years, during which time she was doing regular nursing, showed an arrested condition. Four and one-half years after the condition was pronounced arrested she died of pneumonia, following nursing a case of pneumonia.

Case No. 71: Female, age 19, Student.

Patient had tubercular infection of the cervical glands, one of which had broken down and was suppurating, and two sites of pulmonary infection, one in each apex. Microscopic examination of the x-ray picture showed many microscopic areas of infection.

Smallpox vaccine extract was started at .1cc and increased .1cc until .5cc was given. The dose of .5cc was then given twice a week, except during menstruation, over a period of four and one-half months, at which time the cervical glands had returned to normal size; the p.m. temperature remained normal; the sites of pulmonary infection appeared arrested; the microscopic sites of infection were less in number, or they were more difficult to locate. Within another two months the patient had recovered the expectant weight of a healthy individual of her age and height, 124 pounds, whereas her low mark had been 111 pounds.

There has been an x-ray picture made of her chest at approximately six months periods since the case was pronounced arrested, seventeen pictures over a period of nine years, and the condition remains arrested. Six years of this time she has been regularly employed at secretarial work. Previous to this time, after the case was pronounced arrested, she attended school.

Case No. 197: Male, age 39.

History: Gave history of a cough for about two years, continuous; very moderate loss of weight. Had pneumonia previous to the onset of the cough, had some labored breathing; heart sounds sub-accentuated, chest rales; Mantoux positive; x-ray macroscopically negative and microscopically positive.

Smallpox virus vaccine was used to combat the infection. The initial injection was .1cc; the second .2cc; the third was .3cc, which were given at four day intervals. In seven day intervals .5cc, .7cc, .9cc, 1cc, 1cc and 1cc were given. At this time a four weeks rest period was started. At

the end of the rest period the cough had disappeared; the heart sounds had much improved; weight had slowly increased; chest rales could not be detected; no marked shortness of breath existed. The picture was general improvement. He continued at his work through the treatment. The case was contacted occasionally over a period of about two years after treatment was discontinued and no symptoms appeared to indicate that there had been a relighting of the infection. X-ray remained negative macroscopically.

By way of remark, it might be stated that the dosage was raised to more than the average, because the patient at no time experienced malaise or any other subjective reaction.

Case No. 199: Series A., Female, age 15.

History: Patient gave history of a persistent cough which had existed for about fifteen months; loss of weight, no appetite and very limited endurance. She presented an elevation of p.m. temperature from 99 to 101.5°. B.P. 90/60. Chest rales were considerable. The Mantoux test was positive. The x-ray was macroscopically negative and microscopically positive.

For treatment, smallpox virus vaccine was used. .1cc, .2cc, .3cc and .4cc were injected at seven days intervals. Then .5cc was given at seven days intervals for six injections.

After a four weeks rest period the patient was re-checked. The weight was found to be returning to normal; the cough and rales had disappeared. There was no elevation of the p.m. temperature; the B.P. was 110/66 and physical endurance had improved considerably.

A re-check in nineteen months presented an x-ray which was still macroscopically negative, and continuing general improvement.

Research

The first consideration in the control of tuberculosis, of course is its prophylaxis. The question comes up as to the role smallpox virus vaccine may play in its prophylaxis. So far as the writer's investigation extends along this line, it is limited to animal experimentation. By carrying out research on a considerable number of groups in which control groups were also used, it was determined that the animals that had received a considerable series of injections of smallpox virus vaccine were not successfully inoculated by injection of tubercle bacilli, the same number of which readily successfuly inoculated the control animals. It was also determined that control groups were successfully inoculated with tubercle bacilli with much smaller numbers of tubercle bacilli, than groups that had received for immunization the live smallpox virus. The exact ratio between the efficiency of immunization by the use of the living virus and the killed virus was not accurately determined. But the estimate of results appeared slightly in favor of the live virus immunization. This conclusion is based on the observation that when the number of tubercle bacilli were injected into the group immunized with smallpox virus vaccine raised to the number that would produce an infection, was injected into a group immunized with the live smallpox virus, a smaller per cent of infections took place than took place in the group immunized with the smallpox virus vaccine.

Prophylaxis

The birth of the prophylaxis of tubercle bacilli infection is in its

third stage of labor. When it is born it will rapidly grow to maturity, and its maturity will include prophylactic measures, starting at the birth of the infant, whether the adopted measure be "that, this or the other." While the writer's vocation for over forty-five years has been the study and practice of medicine, one of his avocations has been a study over this period, of tuberculosis along the lines expressed above, and as he is convinced that by the earliest possible diagnosis, treatment, prompt, adequate and continuous, and prophylaxis started at birth and maintained, the present rate of a death by tuberculosis of one each ten minutes in the United States can be reduced to a death not oftener than one every ten hours, or even fewer than that.

It has long been a saying of the laity "If one had a severe case of smallpox and recovered, now he will live to be hung," meaning, his sickness was over for life. That was just a way of bringing out the fact of the power of the smallpox infection to immunize. By the use of smallpox virus vaccine, the same quality of immunization can be attained under control.

Objective

One main object of this paper is to call all researchers along this line to assist in determining if the writer's observations and those of the laity can be verified, and a system of prophylaxis started at birth, can be established. If smallpox virus vaccine will immunize animals against inoculation with a considerable number of tubercle bacilli, it is reasonable to anticipate it will also immunize the human against the tubercle bacilli.

Treatment of Acne

Question:

Over and over again, I find myself wondering if there is any *proven* method of treating acne. All sorts of diets, vitamins, vaccines and even hormones are suggested in the literature. How effective are x-rays and how dangerous? M.D., Columbia, Missouri.

Answer:

A consensus of dermatologists indicates that methods of value are 1. elimination of chocolate, fats, milk and milk products, 2. local application of sulfur lotion or cream (lotio alba or lotio asulfa or Kummerfeld lotion), 3. scrupulous cleanliness, removal of blackheads, incision of furuncles or application of liquefied phenol (88 percent) to the top of the lesion, which causes them to abort without scarring and 4. x-ray therapy, if the patient is 18 or older. The dangers of roentgen therapy are many, involving late skin damage and obvious dilated vessels; a course can never be repeated; because 20 to 22 treatments of 50 roentgens each must be given, the expense is large and treatment unavailable to many persons who do not live near a competent radiologist. The possession of an x-ray machine does not guarantee safe results.

In case of recurrences, check the patient's diet by means of an actual list of foods eaten.

If the face is greasy, the application of equal parts of sulfur and starch powder at night with a powder puff will dry the skin and help the acne. Dry or average skins may be benefited more by application at night of sulfur lotion which can be made up by any druggist:

℞	Resorcinol	2.0 Gm. or cc.
	Sulfur precipit.	5.00
	Zinc oxide	
	Talc aa	20.0
	Glycerin	10.00
	Aqua	
	Alcohol (95%) aa	35.0

This lotion may be made stronger by increasing resorcinol to 6 percent and sulfur to 10 percent.

Diagnostic Error

(SORE THROAT)

The patient, a woman of 32, had been given sulfadiazine during the treatment of an acute sore throat. Fever, chills and an increase in the pharyngitis followed in 36 hours. General physical examination and urinalysis was negative, except for a swollen, red throat with ulcerations on the posterior wall. The patient looked desperately ill. What is the diagnosis?

Blood Count

Hemoglobin 90 per cent; red blood cells 4,200,000; white blood cells 4,100.

A smear showed only one neutrophil in each ten white blood cells studied. Diagnosis: Agranulocytosis.

What Was Done

The sulfadiazine was continued and penicillin was also given in doses of 30,000 units every 4 hours, for the "severe sore throat."

What Should Have Been Done

The sulfadiazine should have been stopped and pencillin given in large doses, i.e. 100,000 units every 3 hours.

Reason: Agranulocytosis (the disappearance of the granular leukocytes) is almost always due to drug sensitivity. The drug must be stopped at once, if fever, chills or sore throat appear.

Infection is the cause of death if no penicillin is given to combat it. Sepsis results because the total number of neutrophils in the body are reduced to nil, or a small fraction of normal. Consequently, the first line of defense against infection is reduced, and the pathogenic bacteria always present in the mouth and throat, and also in the rectum and vagina, may invade the tissues and cause a fatal septicemia . . . Not a single patient should die of this condition, provided: 1. The patient is not in extremis; 2. all drugs which might cause the condition should be eliminated and 3. pencillin is administered in adequate doses" (C. C. Sturgis, M.D. Univeristy of michigan Medical school, Ann Arbor, Michigan).

"A moderate drop in white blood cells is fairly common during sulfonamide therapy but unless the neutrophils markedly decrease (less than 40 per cent) it seems to be of little account and rapidly disappears upon withdrawal of the drug. True agranulocytosis is one of the most serious of sulfonamide therapy complications. Approximately 70 per cent of patients who develop it, die. Sulfanilamide and sulfathiazole are the most common causes; sulfadiazine is a rare cause." (R. P. McCombs, M.D. in "Internal Medicine;" W. B. Saunders Company).

"All sulfonamide drugs, thiouracil, aminopyrine, gold injections, arsphenamine and neoarsphenamine or "Pyramidon" cause agranulocytosis. These drugs may be causative: Barbiturates, antipyrine, phenacetin, neostibosan, quinine, cinchohen, bismuth, Nirvanol and plasmoquin" (Sturgis).

HOW TO "MISS THE BOAT"

Two hours in the waiting room and fifteen minutes in the consultation room is not conductive to successful practice. —Alfred Hendrickson.

Infant Feeding*

The former rigid feeding schedule used by pediatricians resulted in a 50% incidence of loss of appetite by age 6.

Infants have an unstable food tolerance which is affected by upper respiratory infections, hot weather, and other conditions. This food intolerance must be respected. One must decrease the food intake with decreasing tolerance. The minimum amount of food should be given which causes weight gain or vomiting or diarrhea may occur. If tolerance is lost, there is a delay in gastric emptying, a decreased hydrochloric acid secretion, and poor fat digestion.

Don't make a sick baby eat, or one will lead to loss of appetite later on.

If food is refused, give fluids and decrease the amount of food. Dilute out the formula or use skim milk . . . don't wait until food is refused. If evaporated milk is used, it may be diluted. If diarrhea occurs, milk should be boiled for 20 to 30 minutes which makes it more digestible. Sugar might be left out of the formula for a time.

Citric or lactic acid, or orange or lemon juice may be valuable for babies with chronic diarrhea, or chronic infection and a high caloric diet. If the baby is breast fed, the intervals between feedings should be lengthened and water should be given instead.

It must be remembered that infant kidney function is less than that of adults. Urea clearance studies have shown a hundred percent variation, so must one individualize baby care.

If the baby is very active, an crying, one must give a high fo intake . . . one cannot remain 120 milligrams per kilogram.

There is a marked variability i the food intake voluntarily co sumed by the baby, yet it gain steadily. The baby adjust voluntari to its needs.

One should discuss nursing befor delivery so that the mothers wi not worry about the baby starvin

If the breasts are expressed 2 o 3 times daily during the last months of pregnancy, one will avoi the inspissation and the inability t nurse. Breast feeding is simple . . there is no sterilizing, no refrigera ing, no work for father or someon else in the family, less expense, an psychologically better for mothe and baby.

The doctor should be careful n to criticize artificial feeding too muc or may lead to anxiety, or may ot erwise cause the breasts to dry u which may again lead to mor worry.

A healthy baby varies its intak so artificial feeding may be allowe if necessary. Breast milk is i creased by adequate rest and exe cise, relief of worry. A relief bott may be given, if necessary. Se regulation, offering an amou larger than the baby will want ever four hours, is often effective. N feeding should be given at night u less the baby cries at the early a.m . . 6, 7, or 8 o'clock in the mornin

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GERIATRIC WISDOM

Learning maketh the soul young; it decreaseth the bitterness of old age. Gather, then, wisdom. Gather sweet fare for thy old age.—Leonardo Da Vinci.

Problems in Practice

(CONSULTATION SERVICE)

Diabetes

Question:

How many persons have diabetes? Is the possibility of diabetes in the average office patient sufficient to perform a urinalysis on all such patients?—*M. D., Kalamazoo, Mich.*

Answer:

The number of diabetics in the United States is estimated at about one million, though there are great difficulties in making a diabetic census. This large population is due to the great diminution in the death from diabetes following the discovery of insulin. Insulin has increased the life span of the diabetic by an average of about 20 years. Another fact of importance is the increased accuracy of diagnosis and reporting of cases.

Diabetes is more common to women and in older age groups. It is also greater among the Jewish race and among the obese. It is more frequent in married women. It was found in identical twins in nearly 50 per cent of the cases seen by Dr. Priscilla White (33 cases) and only 3.5 per cent among dissimilar twins (63 cases). It would appear from this and some other reasons that there is an inheritance of some gene that is present in diabetic strains that causes perhaps a hyperactivity of the pituitary that in turn acts on the pancreas.

1. Diabetes is universal and found in all races.

2. The number of diabetics in the United States has increased largely because the use of insulin has prolonged the life of the diabetic individual.

3. It is more frequent among the obese and those living on a liberal diet. It is greater among women than among men.

4. The incidence is greater among the Jewish race.

5. It is greater among married women.

6. There is a higher rate in cities.

7. It is greater among those with leisure.

8. Mortality for diabetics is increased apparently by indulgence in liquor.

A striking evidence of the effect of the increase in diabetes with increased nutrition is shown by the comparison of the rate among the Irish in Ireland and Americans of Irish descent. The diabetic rate in the former is low, in the latter far higher than in Ireland. This is ascribed to the higher level of prosperity here.

Another interesting fact brought out by Joslin is that the nervous element and also trauma, both of which have been long considered as etiological factors, are largely discredited as causes of the disease. ("Treatment of Diabetes").

Educating Your Patient: Sex

Question:

After reading over your collection of articles on sex, I wonder just what it is all about. Literature is so confused and confusing as each person endeavors to put forth his religious, personal, psychiatric, psychologic or anatomic views on sex. What books can be advised for engaged couples?—*M.D., Denver Colorado.*

Answer:

"Getting Along Together" by Marjorie Kern and published by Robert McBride and Company, New York City, can be recommended to engaged *and* to married couples. It is commonsense everyday presentation of common difficulties in sexual, social, household, vacation, hobby and other fields, and of methods for their solution.

As opposed to the old, ascetic viewpoint which believed that sex was a necessity for most of the human race, but from which enjoyment must be excluded, read, "Love is the spiritualization of the sex instinct between two beings who so love that they want to fuse, body and soul, where physical intimacy has a meaning totally dissociated from the thought of children. . . . Joy is as holy as pain . . . Goodness and kindness overflow from the happy person and spread their influence wide. In a marital relationship that fulfills the psychic needs as well as the physical, the whole personality expands and flowers, radiates new energy and sympathy."

The real purposes of sex are: 1. The propagation of the species; 2. completion; 3. mutuality in human relationships; and 4. enjoyment. "The fact that sex is, or should be, fun has been considered by the moralists as unfortunate or merely incidental. If we believe that mind and body are aspects of the person and that the body is not to be scorned or scourged as something inferior, the enjoyment function of sex can have meaning in its own right. Preoccupation with some other function of sex, as propagation, has often eliminated the enjoyment element from sex, to the detriment of all."—(S. Hiltner, *Journal of Social Hygiene*, Jan. 1948).

"Successful Marriage" edited by Morris Fishbein and E. W. Burgess and published by Doubleday and Company, is a collection of short articles by various authorities on all aspects of marriage, adjustments both physical and psychic, raising of children, divorce problem, venereal disease and related subjects. It is a valuable text for both the physician and the prospective or actually married couple. As each author has special knowledge in his field, the work is unusually varied, authoritative and interesting.

Penicillin in Biliary Tract Surgery

Question:

How can I make my surgery upon the gall-bladder and common bile duct safer for the patient? Occasionally, a death occurs without obvious explanation, after a period of 2 to 6 days. Postmortem reveals necrosis of the liver. Are these due to ligating the hepatic artery?—*M.D., Denver.*

Answer:

It was always taught that massive, acute liver necrosis followed ligation of a hepatic artery (especially likely to be involved was the right hepatic artery which anomalously crossed the gallbladder or cystic duct). J. Markowitz et al. of the Department of Physiology of the University of Toronto have just reported a series of experiments which may indicate that death following hepatic artery ligation may actually be due to an overwhelming infection by an anerobic organism. Prophylactic injections of penicillin and those given immediately after the operation seemed to prevent such liver infections and deaths.

The Tired Patient

Question:

What about the patient who is tired, who does not feel well, and yet in whom a complete physical and laboratory examination does not reveal any cause? All usual sources of disease have been excluded by careful studies, examinations, and by passage of time, over a period of many months.—*M.D., Chicago, Ill.*

Answer:

Conscientious physicians now usually go over a patient thoroughly in looking for a positive disease. They may be remiss, however, in finding evidences of deficiency disease. That is, disease due to the lack of a normal body constituent. Gradually, physicians are becoming aware of the symptoms of vitamin deficiency and such syndromes are rarely encountered. Lack of thyroid hormone is a relatively common cause of tiredness, which is often forgotten. One syndrome that is rarely or never mentioned in differential diagnosis is that of iodine deficiency. Fatigue in adolescent children may often be due to lack of iodine. The giving of extra iodine during pregnancy decreases the number of miscarriages and increases the number of mothers who have an adequate milk supply. One may be protected against iodine deficiency by using iodized salt. This salt should be emphasized in adolescence and pregnancy.

Lumps After Procaine Penicillin

Question:

A patient who has received a number of buttock injections of procaine penicillin complains of tender lumps or nodules in the areas injected. No fluctuation can be made out. Treatment?—*M. D., Forest Hills, N. Y.*

Answer:

Procaine penicillin in oil with aluminum monostearate injections result in a small area of muscle damage and resusting cyst formation. Nelson, Price and Welch (*J. Am. Pharm. A.* 38:237, 1949) demonstrated experientally that such injections cause an area of necrosis roughly ½ cm. in diameter. Local heat and massage are all that is necessary. One should be careful not to give such injections close together in the same area or a larger area of necrosis may result. Don't forget that such injections can be given in the thigh muscles, as alternate locations.

Routine Tuberculin Tests

Question:

Should children be routinely tuberculin tested? We have done so at our school for a number of years and have x-rayed the positive reactions, yet have not found any lesion aside from primary tuberculosis.—*M.D., San Diego, Calif.*

Answer:

As Dr. S. J. Shipman has well said, it is good epidemiologic procedure to routinely tuberculin test all children for two reasons: 1. To find the child who may have a tuberculous infection and 2. to find the source of the infection in the household group. In thinking of sources of infection, do not overlook grandparents, aunts, uncles, boarders, teachers and close friends. They should all be tested until the source of the positive tuberculin test is found. *Such study will often disclose an unsuspected case of pulmonary tuberculosis in time for effective treatment*, or at least will avoid further spread from this patient.

The symptoms of primary tuberculosis are vague, i.e. poor weight gain, possibly a slight fever, erythema nodosum, phlyctenular conjunctivitis, or no symptoms at all except the positive tuberculin test and a very small chest lesion on the x-ray.

The Patient With a Protruded Intervertebral Disc

Question:

Must every patient who has symptoms and signs suggestive of a protruded intervertebral disc be operated upon? What conservative treatment can be carried out?—*M.D., Aberdeen, S.D.*

Answer:

In private practice, where the man is anxious to get back to work, results in removal of the disc have been good in 80 per cent of cases, *especially* if the pain and disability have been severe. In industrial cases, only ⅓ of men get back to their original work. In England, as reported and illustrated previously in *Clinical Medicine*, a fairly large series of such patients have responded well to a full plaster cast to the trunk, applied with traction by a head halter. Eugene Lopesko reports in *Industrial Medicine and Surgery* that a routine of progressive active and passive fascial-ligamentous stretching of the back and legs and back manipulations were very effective, even in more chronic forms of painful low back and disc cases.

Postmortem studies indicate that thousands of persons have suffered from protruded discs without severe symptoms and recovered without operation.

Pain in the Chest

Question:

How much sensitivity is there in the lung? Can the patient point out the location of lesions in the lung? In other words, how much significance should be given to lung pain that does not have an obvious explanation?—*M.D., Ann Arbor, Michigan.*

Answer:

Sidney J. Shipman has recently emphasized that the lung has more sensory innervation than was formerly taught. Pleural pain can be localized very accurately. He emphasizes that cough and expectoration are the most common pulmonary disease symptoms but are not of localizing value. The patient may be able to localize a lesion, such as small areas of bronchopneumonia, by mild pain. Lobar pneumonia may cause excruciating pain, which may be relieved by injecting 500 cc. of air into the pleural cavity.

Bronchogenic carcinomas may cause mild but well localized distress, a slight ache like a scarcely noticeable toothache, an unusual sensation of something new, may cause the patient to point at the location of the lesion; this is especially true in more rapidly growing lesions.

Quite often the patient can localize the site of wheezing.

Pregnancy in the Forties

Question:

A woman of 41 will soon have her first delivery. She is in good general health, has gained only 18 pounds by dint of strict restriction on salt and starchy foods, has no edema or urinary findings, blood pressure 126/88, has had no serious diseases. Pelvis is ample, fetal heart tones strong and 156. What complications may occur due to her age? San Francisco, California.

Answer:

All major obstetric criteria seem to be met. "If no major complications are present, one can approach the care of the older patient, primigravida or multigravida, with the same confidence one has in that of a younger patient." (L. A. Calkins, University of Kansas Medical Center, Kansas City, Missouri). In other words, age is not a complication nor the direct cause of complications except for the greater incidence of uterine fibroids, hypertensive cardiovascular disease and possibly carcinoma.

Easy Venipuncture

Question:

What is a simple procedure for quickly puncturing a vein in a fat person, or one where the veins are collapsed, due to bleeding or other causes of shock?—*M. D., New York City*

Answer:

If the arterial pressure is within the normal range, a tourniquet should be applied above the elbow, or above the ankle, moderately tight and hot wet-packs applied to the arm or foot. This will increase the blood flow superficially enough so that the vein will become prominent.

If the blood pressure is low, and immediate injection is necessary, novocain may be injected into the skin and a short incision made across the region of the vein. The subcutaneous fat is separated by blood dissection and the vein exposed. The needle is not thrust into the vein through the incision, but rather is forced through the skin ½ to 1 inch away from the incision, and pushed in until the point is visible in the incision. It may then be introduced into the vein under direct vision until at least ¼ to ½ inch of the needle is within the vein. This technic, suggested by Heinrich Lamm of La Feria, Texas, permits the needle to be manipulated parallel to the vein, thus preventing puncture entirely through the vein and also the fixation of the skin prevents dislodging of the needle by movement of the patient, because the vein is not tied off such as is necessary with the use of a cannula. The vein is not disturbed and may be used again.

Removal of Foreign Bodies in the Eye

Question:

I, like other general practitioners, have an occasional patient who has a foreign body in the eye. Because of the forty mile distance to the nearest ophthalonologist, I remove the simpler objects. What points in technic should be followed?—*M. D., Kansas.*

Answer:

Clinical Medicine published a pictorial section on this problem which demonstrated procedures in examining the eye and in finding foreign material.

One recent suggestion, by Maurice Hauser of Alexander Blain Hospital, Detroit, is the use of a sterile 25 gauge hypodermic needle attached to a 2 or 5 cc. syringe without plunger, as an eye spud. Thus a sharp instrument is readily and cheaply obtainable.

Before ruling out a foreign body, put a drop of 1 per cent aqueous fluorescein solution, obtainable at any supply house, in the eye, to see if it will stain glass or other transparent material, or an injured area of the eye (the injured area will turn green).

Rust around a piece of iron may be gently removed with the spud or may be touched with a small applicator dipped in 2 percent silver nitrate solution, following which the rusty epithelium may be removed or may be allowed to separate in 24-48 hours.

Be sure to use adequate local anesthesia (½ per cent pontocaine or 2 per cent butyn), repeated until the patient cannot tell when you touch his eye.

ENTHUSIASM

Our enthusiasms are to be tempered with reason; yet reasons are false if they inspire no enthusiasm.—Arthur Goodby.

Thumbnail Therapeutics

Urethane Therapy in Multiple Myeloma

Striking benefit in all aspects of multiple myeloma occurred after four patients were treated with urethane (ethylcarbamate) for 8 to 10 weeks in total doses of 120 to 290 grams and observed from seven to thirteen months. Fever, skeletal pain, and acute symptoms subsided after two to four weeks of treatment. In patients with severe anemia, immature cells disappeared from the circulation and, over a period of several weeks, the blood values improved greatly. Abnormal plasma cells in the bone marrow decreased in number and underwent morphological changes indicative of retarded or arrested growth. Serum protein abnormalities, albuminuria and Bence-Jones proteinuria became less pronounced or disappeared. Skeletal changes did not progress, but did not significantly recalcify after four to six months of treatment.—J. P. Loge & R. W. Rundles, *Blood* IV, 201-215, March 1949.

Quinidine for Hiccup

Quinidine, in doses of 10 gr. intramuscularly, given every hour for 3 or 4 doses, followed by maintenance doses of 5 gr. orally every 2 or 3 hours, often cures persistent hiccups. If the paroxysm recurs, the initial doses are repeated. Amphetamine sulphate (Benzedrine) has also been used for hiccup. —*Digest of Ophthal, & Otolaryng.*

Delirium in Children

Delirium is commonly found accompanying fever in children. It is usually cured at once by immersion in a warm bath. If this does not promptly relieve the delirium, *suspect pneumonia or meningitis.—Medical Review* (England).

Mercurial Diuretics in Congestive Heart Failure

Experience in the handling of cardiac conditions soon teaches that the dosage of the mercurial diuretic, like that of digitalis, must be tailored to fit the patient. Not infrequently, 0.75 cc. is found to produce the desired effect without the weakness, prostration, muscle cramps, and other symptoms which frequently follow larger doses. The routine use of 2 cc. for a first injection, whether given intrumuscularly or intravenously, should be discouraged, particularly in elderly subjects." — H. I. Russek M.D. in *J.A.M.A.* 139, 922-923, April 2, 1949.

Cervical Lesion Treatment

Cervical lesions requiring treatment are nabothian follicles (cautery puncture), polypi (avulsion), erosions (silver nitrate 20 per cent of linear cautery), endocervicitis (daily injections on three successive days of 300,000 units of penicillin). R. T. Frank, M.D. in *J.A.M.A.*, July 23, 1949. (Endocervicitis should probably be cauterized after the acute infection is controlled by penicillin therapy.—Ed.)

Irradiation Treatment of Inoperable Uterine Prolapse

Stimulation of connective tissue production about the cervix by radium or radon has cured a number of inoperable cases of uterine prolapse.—J. L. McKelvey, M.D. Professor of Obstetrics, University of Minnesota, Minneapolis in *Bull. Univ. Minn. Hosp.*, Apr. 23, 1948.

Liver Extract for Herpes Zoster

One injection of 2 cc. of liver extract cures most cases of herpes zoster. — James Rooth, M.D. in *Brit. Med J.*

Diagnostic Pointers

Myxedematous Madness

Myxedema (hypothyroidism) is one of the most important, least known and most frequently missed causes of organic psychoses—important because it may respond so gratifyingly to oral thyroid extract, because so little has been known or written about it. *The typical textbook description of myxedema is the exception, not the rule.*

There is no specific type of psychosis due to myxedema. Signs and symptoms include coldness, hair falling out, increase in weight, drowsiness, slow movements and speech, delusion, hallucination, "senile," mental quirks including ideas of persecution, and confusion. The diagnosis is confirmed by results of thyroid administration, not by the basal metabolism test. — R. Asher, M.D. *British Med. J.*, Sept. 10, 1949. (Physician, Central Middlesex Hospital, England).

Pernicious Anemia and Gastric Cancer

Pernicious anemia is the blood brother of gastric cancer. The incidence of stomach cancer in pernicious anemia patients is 5 times as great as in any other individual in the same age group. Cancer of the stomach is a silent lesion. Patients with pernicious anemia must have a routine gastro-intestinal x-ray preferably every 6 months.—John Boehrer, M.D., *Minn. Med.*, Sept. 1949.

Atypical Pneumonias

Any peculiar or poorly explained pneumonic process which demonstrates an unusual clinical or x-ray behavior in the lungs of an older individual, especially a male, should be suspected of being a bronchogenic carcinoma.—L. V. Ackerman, M.D. in *J. Kansas S. Med. Soc.*, Aug. 1949.

Frequency of Urination

Daytime frequency of urination without nocturia suggests anxiety as a cause rather than organic disease. Study the patient as a person.

Persistence of frequency after treatment may suggest that some process has not been relieved. After cystitis in the female has been treated, frequency may persist due to a urethritis, which needs dilatations at weekly intervals to be cured.—Kenneth Walker, M.D. in *Med. World*, Aug. 26, 1949.

Significance of Fecal Types

Passage of hard, dry feces, especially if painful, often indicates that the bowel is spastic and over-stimulated, rather than inactive. Watery feces may indicate that very rapid peristalsis carried fecal matter through the colon without giving time for absorption. Atropine or tincture of belladonna plus phenobarbital in small doses relieves such nervous indigestion.—Walter L. Palmer, M.D., in *Mod. Med.*, Oct. 15, 1949.

Ovarian Tumors

Ovarian tumors smaller than the size of a lemon that are symptomless and which are probably follicle or luteum cysts, certainly demand no surgical intervention, but repeated observation. If they are found to enlarge, to show growth activity, then most definitely do they demand surgical intervention.—H. E. Schmitz, M.D. in *J. Kans. S. Med. Soc.*, Aug. 1949.

Hemorrhoids and Liver Disease

The presence of internal hemorrhoids should make the physician think of liver disease, as cirrhosis.—Grover C. Dale, M.D., (Goldboro, N. C.) in *Southern Medicine and Surgery*, Aug. 1949.

NEW MEDICAL PUBLICATIONS

Any book reviewed or listed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE, 1232-36 Central, Wilmette, Illinois, is accompanied by a check for the published price of the book.

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AN INDEX OF TREATMENT *By Sir Robert Hutchson, Ed.* Williams and Wilkins Co.—$17.00	General Practitioners and Internists	British specialists write on common conditions
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